



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/693,118

10/24/2003

Richard Walter Speer

18079US

1620

7590

10/21/2004

Tyco Electronics Corporation
Suite 140
4550 New Linden Hill Road
Wilmington, DE 19808-2952

EXAMINER

NGUYEN, CHAU N

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/693,118	SPEER, RICHARD WALTER	
	Examiner	Art Unit	
	Chau N Nguyen	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8-19-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 3 is objected to because of the following informalities: in claim 3, line 6, change "by the dielectric enhancing section" to --which--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-5 and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyasu et al. (2003/0205402) in view of Gerland et al. (3,516,859).

Koyasu et al. discloses an electrical cable (Figures 5, 6, 34 and 35) comprising an outer jacket, a plurality of conductors within the outer jacket, and a filler having a core within the outer jacket, the core having a dielectric enhancing section extending therethrough and a plurality of voids ([0123]) substantially

surrounding the dielectric enhancing section which is formed as a hollow tubular structure. Koyasu et al. also discloses the core being polyethylene (re claims 5 and 11), the dielectric enhancing section being formed as a hollow structure (re claims 7 and 10), and the core being formed in the shape of a cross (re claims 8 and 12).

Koyasu et al. does not disclose an outer skin surrounding the core (re claims 3 and 9) nor the core being extruded with a foaming agent to create the voids (re claim 4). Gerland et al. discloses a cable comprising a core (2) surrounded by an outer skin (3). It would have been obvious to one skilled in the art to surround the core of Koyasu et al. with an outer skin to provide the core with a smooth outer surface since the outer surface of the (foam) core is porous and rough as taught by Gerland et al. It would also have been obvious to one skilled in the art to form the voids of Koyasu et al. by extruding the material with a foaming agent since using a foaming agent in an extruded material to create a foam layer is well-known in the art.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koyasu et al. in view of Gerland et al. as applied to claim 3 above, and further in view of Clark et al. (6,074,503).

Clark et al. discloses an electrical cable (Figures 1 and 3) comprising a filler having a core within an outer jacket, the core having a dielectric enhancing section extending therethrough and a plurality of voids (col. 3, line 66) substantially surrounding the dielectric enhancing section which is formed of a thread (col. 4, lines 40-42). It would have been obvious to one skilled in the art to form the dielectric enhancing section of Koyasu et al. in formed of a thread such that in some applications, the thread can be used as a drain wire as taught by Clark et al.

4. Claims 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al. in view of Gerland et al.

Clark et al. discloses the invention substantially as claimed including the dielectric enhancing section being formed of a thread (re claim 13). Clark et al. does not disclose an outer skin formed of an insulating material surrounding the core (re claim 9). Gerland et al. discloses a cable comprising a foam core (2) surrounded by an outer skin (3) formed of an insulating material. It would have been obvious to one skilled in the art to surround the foam core of Clark et al. with an outer skin to provide the core with a smooth outer surface since the outer surface of the (foam) core is porous and rough as taught by Gerland et al.

Response to Arguments

5. Applicant's arguments with respect to claims 3-8 have been considered but are moot in view of the new ground(s) of rejection except for the following.

Applicant argues that Koyasu et al. teaches away from providing a plurality of voids in the core, nowhere does Koyasu et al. suggest foaming the material, and providing voids to Koyasu et al. core would arguably destroy or at least diminish the intended purpose of Koyasu et al's cable. These arguments are not found persuasive because Koyasu et al. does teach using foam material for the core. In fact, Koyasu et al. teaches that using foam material allows the dielectric constant to be lowered and has an effect on improvement of the flexibility (see the last 3 lines of [0123]). Accordingly, Koyasu et al. does not teach away from using foam (or voids) for the core material.

Applicant then argues that Gerland et al., while teaches coating a solid or a skin onto a foam core, the method taught by Gerland et al. is not combinable with the cable Koyasu et al. Regardless the method used in Gerland et al. to provide the skin layer onto the foam core, Gerland et al. is used only to support the position of providing a skin or a solid layer onto a foam core to provide the core with a smooth outer surface because the outer surface of the foam core is porous and rough.

Accordingly, the method used in Gerland et al. is not a fact in considering whether the combination between Koyasu et al. and Gerland et al. is a proper combination.

In response to applicant's argument that Koyasu et al. does not teach an addition of an outer skin to the hollow structure and Gerland et al. does not suggest combining the outer skin with the features of a hollow tubular structure surrounded by a plurality of voids, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Regarding the Clark et al. reference, applicant argues that Clark et al. does not teach foamed material or the creation of voids around the dielectric enhancing section. This argument is not found persuasive because Clark et al. does teach using foamed material (voids being created in foamed material) surrounding the dielectric enhancing section. In response to applicant's argument that Clark et al. discloses a central channel provided to carry a fiber optic element or a drain wire in that area neither of which are intended to act as a dielectric enhancing section or to supplement the mechanical strength of the filler material, a recitation of the

intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Summary

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will

be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/693,118
Art Unit: 2831

Page 9

A handwritten signature in black ink, appearing to read 'Chau N Nguyen', with a stylized, cursive script.

Chau N Nguyen
Primary Examiner
Art Unit 2831